

DISCUSSION OF THE AMENDMENT

Claims 11 and 13-19 are active in the present application. Claims 1-10 and 12 are canceled claims. Claim 11 is amended herein to include the limitations of previous dependent Claim 12. Claim 19 is a new claim. Support for new Claim 19 is found in the examples.

The Abstract is amended for matters of form.

No new matter is added.

REMARKS

Independent Claim 11 now requires the presence of an alkoxylate of formula (I) that is a particular mixture of alkoxylate isomers A1 and A2 that must include an unbranched group (i.e., $n\text{-C}_5\text{H}_{11}$) and a singly branched group having branching at the 4 or 5 position. Applicants submit that the prior art relied on by the Office does not disclose an alkoxylate mixture meeting the requirements of the alkoxylate mixture of present Claim 11 and therefore the cited prior art cannot anticipate the presently claimed invention.

Applicants draw the Office's attention to new Claim 19 which requires that the alkoxylate of formula (I) consists of a mixture of the alkoxylate A1 and the alkoxylate A2.

The Office asserts that the compositions of Hoffarth (U.S. 5,705,476) inherently contain the mixture of isomeric alkoxylates of previous Claim 12 in the amounts recited in previous Claim 12. Applicants submit that the Office's assertion with respect to the composition of the Hoffarth alkoxylate mixture is not correct. Evidence in support of Applicants' traversal of the Office's rejection is provided in the Hoffarth examples.

For example, the alkyl radical represented by $n\text{-C}_5\text{H}_{11}\text{CH}(\text{C}_3\text{H}_7)\text{CH}_2\cdot$ is a 2-propyl-heptyl radical. This alkyl radical must be present in an amount of 70-99% by weight in the alkoxylate of formula (I) of Claim 11. In addition to the 2-propyl-heptyl radical, the alkoxylate of formula (I) must also include alkoxylates having alkyl radicals of formula $\text{C}_2\text{H}_5\text{CH}(\text{CH}_3)\text{CH}_2\cdot$ and/or $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\cdot$. Such a mixture of alkoxylates is not inherently derived from the alkoxylates made from iso-decanol and n-decanol of Hoffarth.

The wetting agents of Hoffarth include compounds that are made from iso-decanol and n-decanol. Alkoxylates derived from such alkyl radicals do not inherently include the isomeric mixtures of present Claim 11. Therefore, the mixtures of Hoffarth cannot inherently or implicitly meet the requirements of present Claim 11.

The rejection of the present claims as anticipated by Hoffarth is therefore not supportable and should be withdrawn.

In the alternative to anticipation, the Office asserts that the claimed invention is obvious. In support of the obviousness rejection the Office relies at least in part on Bahrman (U.S. 6,482,972). It appears to be the Office's opinion that the isomeric mixture of the present claims would be obvious because Bahrman discloses certain compositions of 2-propyl-heptanol that contain 2-propyl-4-methylhexanol.

Bahrman discloses alkoxyate mixtures in the examples. Bahrman describes the composition of prior art mixtures in tabular form in columns 5-7. In no case is an alcohol mixture described that contains the isomeric mixture recited in present Claim 11. Further, Bahrman nowhere discloses or suggests that the particular isomeric mixture recited in the present claims may be derived in the manner disclosed in the prior art patent.

Applicants submit that Bahrman in combination with Hoffarth cannot render the presently claimed invention obvious because the combination of the prior art cited by the Office does not disclose or suggest the presently claimed mixture of alkoxyate materials.

Further in support of the nonobviousness of the presently claimed invention, Applicants submit herewith a Declaration under 37 C.F.R. §1.132. The Declaration provides examples of alkoxyates of different materials and shows how an alkoxyate mixture meeting the particular isomeric requirements of the present claims can provide improved surfactant performance such as improved wetting on textile surfaces.

Example 4 of the Declaration describes two different alkoxyates. One alkoxyate is made with pure 2-propylheptanol (i.e., Example 4a). The other alkoxyate is made from a mixture of alcohols including 90% 2-propylheptanol and 10% 4-methyl-2-propylhexanol. Example 4a does not meet the present claim limitations because only one type of alkoxyate is present (i.e., alkoxyate A1 = 2-propylheptanol) instead of the mixture of two alkoxyates of present Claim 11 (i.e., alkoxyates A1 + A2).

The effect of using a mixture of two alkoxylates made from, e.g., 2-propylheptanol and 4-methyl-2-propylhexanol, is demonstrated by the wetting performance of the products prepared in Examples 4a and 4b. For example, when wetting, foaming ability, surface tension are measured according to the measurement methods EN 1772, EN 12728, and DIN 53914, respectively, the difference in the inventive and non-inventive compositions may be objectively determined. Example 4b (inventive) provides an approximate 8% decrease in the wetting time in comparison to non-inventive Example 4a. Even greater reductions in wetting time are seen for Examples 5, 6 and 7. The data are tabulated below for convenience.

Example	Wetting (EN 1772)	Foaming Ability (EN12728)	Surface Tension (DIN 53914)
4a	13 sec	20 ml	26.8 mN/m
4b	12	20	27.2
5a	10	25	27.1
5b	9	30	26.3
6a	14	330	27.8
6b	13	350	27.1
7a	47	380	30.5
7b	40	370	30.7

Applicants submit that the data show that the use of an isomeric alkoxylate mixture provides textile wetting performance that is otherwise not achievable with a generic alkoxylate.

Applicants have thus demonstrated the criticality of the use of a particular isomeric mixture of alkoxylates and have thus demonstrated the nonobviousness of the presently claimed subject matter.

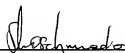
Moreover, Bahrman's disclosure of the derivation of a mixture of alcohols from certain chemical reactions does not suggest the isomeric mixture of the present claims. At best, Bahrman discloses that a complex mixture containing many different alcohols may be obtained by the prior art methodology. There is no disclosure or suggestion to obtain the particular isomeric mixture recited in the present claims.

The combination of Hoffarth and Bahrmann is also inappropriate because the prior art is in non-analogous arts. Hoffarth is drawn to an invention that involves low-foaming wetting agents that contain alkoxyated alcohol mixtures (see the title of Hoffarth). In contrast, Bahrmann describes compositions that include different alcohols used to prepare phthalic esters and their use as plasticizers (see the title of Bahrmann). Applicants submit that the alkoxyated alcohol mixtures of Hoffarth are different from the phthalic esters obtained from the alcohol mixtures of Bahrmann and those of ordinary skill in the art would have no reason to turn to the alcohol mixtures of Bahrmann to make the wetting agents of Hoffarth.

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance and respectfully request the mailing of a Notice of Allowance acknowledging the patentability of the presently claimed subject matter.

Respectfully submitted,

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